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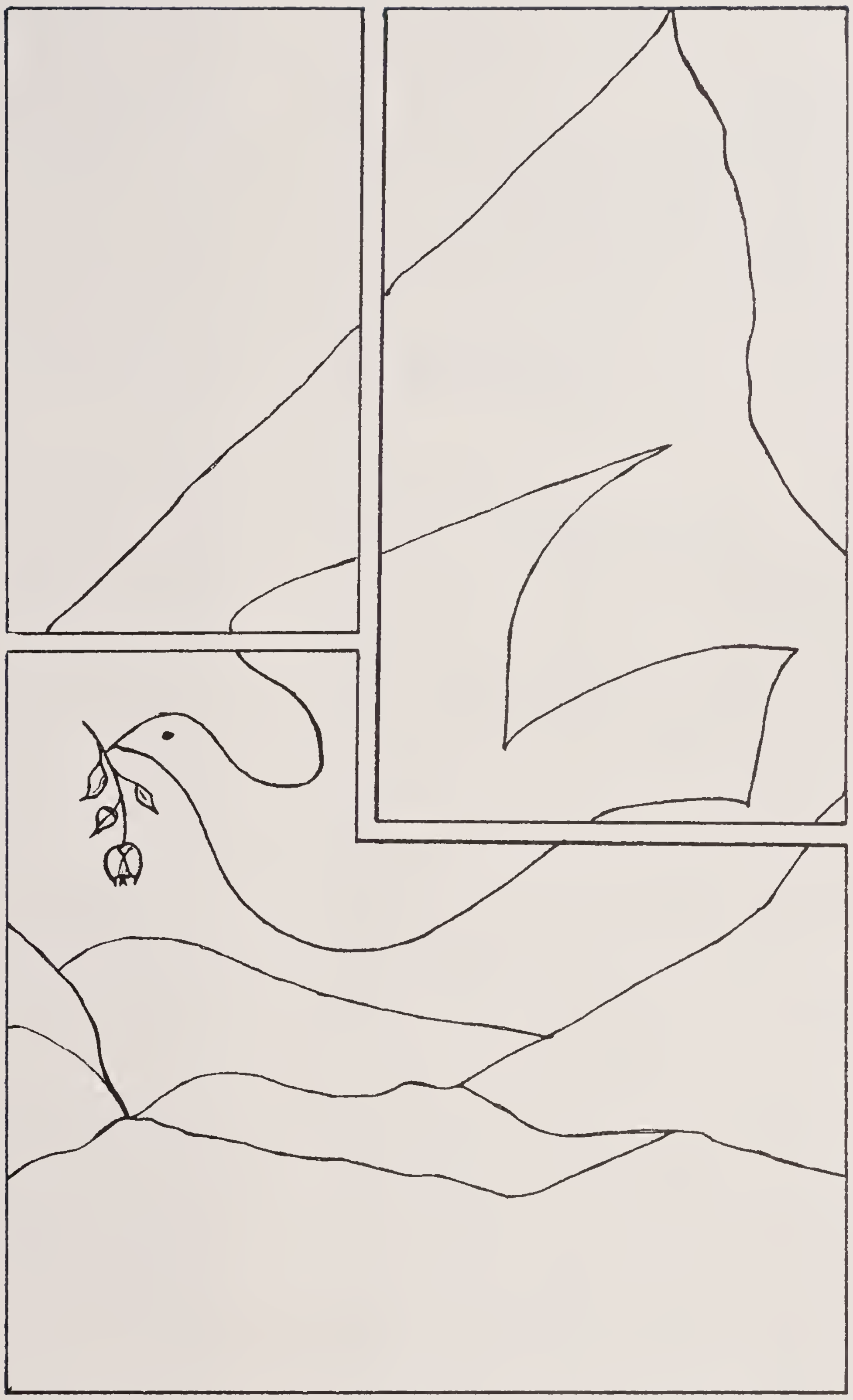

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CONTENTS

Articles

Let's Talk About It: Potpourri 1
Mandate 2
UTCS Strategic Position 2
Microcomputer News 3
Microcomputer Maintenance Service 4
New Text Processing Course for GP UNIX! 4
One Giant Step for FORTRAN Users 4
WYLBUR COLLECT Conference - August 1984 6
WYLBUR Release 7 7
NTSYS 1983 9
A New SAS Manual: Help for Batch & TSO Users 9
SAS and the 8700 10
Changes to the File Transfer Services 11

Departments

Xmas & New Year's Hours of Service 11
UTCS Noncredit Short Courses 12
Change Committee 12
Subscription Renewals 13
Personnel Changes 14
Recent Acquisitions in the Computer Library 14
New UTCS Documents 15
Cumulative Index for 1984 16
Consulting and Enquiries 23
UTCS Directory 23
Committees on Computing 23
UTCS Terminal and Advising Sites 24
UTCS Systems 25

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Cover by Elizabeth Weitmann

Season's Greetings from all of us in Publications.

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Let's Talk About It: Potpourri

Gentle Reader, I am sure you all missed seeing my caustic comments last issue. Even though I do not have a single major topic to concentrate on this month, I will pass along bits and pieces of a number of things rather than miss two issues in a row.

First, let me tell you a bit about how we (UTCS) are doing in this first year of monetization. We seem to be bringing in the same fraction of the money available at the same rate as last year. However, in March of last year we brought in 10% of our revenues and 15% in April. We have no idea what the pattern will look like this year. Therefore, projections are fairly meaningless. Our sense of the whole situation is that many departments or faculties are not releasing substantial fractions of the newly monetized computer funds. Because of this, many of our users feel that the money supplied is shrinking more than our rates have decreased. This, we emphasize, is not the case. Our Board carefully monitored the total amount disbursed, and it definitely was enough to do the job. There are obviously aberrations, where a department's usage profile is far from average. However, on the average, newly monetized entitlements should buy the same amount of computing as before, and research money should buy even more. We receive complaints regularly from users who do not have enough money. I hope that the purse strings are loosened up before the end of the year, or we are all going to be in trouble. Some of you are not going to be able to do all of your required computing, and we will run a deficit. When we have a deficit, we are forced to reduce our services, and this will directly impact how well we can serve you.

Let me tell you about a new structure for Class A service on the IBM Academic machine. We have had requests for a regular turnaround Batch service in off hours. We are now offering Class A Batch service for jobs submitted from midnight to 6:00 am with CPU and I/O charged at 2/3 of the normal Class A rate. This lower rate will also be available for jobs submitted during unattended hours on weekends, holidays and over Christmas. For holiday service, we will extend Class A limits to allow you reasonable turnaround on larger jobs. We are going to be trying this service as a pilot for the next two months to see whether there is a reasonable demand. The "design intent" of the service is to allow people reasonable turnaround at a reduced rate, but at an inconvenient time.

We have been asked a number of times over the last couple of years to consider acquiring a KURZWEIL scanner. This is an interesting gadget that can read a broad spectrum of text in its original form and transform it into machine readable form. As long as the original text is in any sort of reasonable font, the machine can be taught to read it. Using it properly, however, requires a trained operator. We would like to find out whether there is enough interest in the use of such a device to justify our acquiring it. We need to know how much text you would like to read in and how much you would be willing to pay for such a service. If the service can be made self-funding, we will simply acquire the system.

If you are reading this, I presume you are either a user of our services or are interested in our fate. You should probably realize by now that we are under constant pressure to reduce our costs, either to absorb global cuts or to fund departmental computing activities. Last year we reduced our base continuing costs by over half a million dollars. We are operating now in a mode where the only way we can continue to reduce costs is to cut back dramatically on the quality and quantity of the services we deliver. One of the things which has been occupying the Board and us over the past couple of months is trying to figure out what are the appropriate actions to take at the end of the IBM Partnership Agreement. We are con-

continued...

Let's Talk About It continued

sidering moving machines, acquiring new systems, discontinuing services or nearly any combination. If there are any particular services, software packages or machines that you use and that you wish to continue using in the longer term, please let the appropriate Board member or me know. Our Board has members who represent a reasonable spectrum of our users, but certainly not all.

In trying to judge what actions should be taken at the end of the partnership, we (UTCS) needed to have a handle on our longer term strategic directions. We have internally generated a Mandate and a set of Strategic Directions which we have presented to our Board, the Network Committee, and the Committee on Academic Computing. Having incorporated their comments, but not necessarily having obtained their agreement, we have formulated the results of our deliberations as you see below. They are not in their final form. We would appreciate any feedback from you on them. I should note that when we refer to services for systems owned by others, we mean services which we have been asked to provide by the owners.

We think that this is pretty good stuff. Let us know what you think.

Warren Jackson

Mandate

Providing expertise in, and planning, implementing, operating and supporting computer and telecommunication services delivered by facilities owned by individuals, departments and the University.

Basic Operating Principles:

Services must be explicitly defined in terms of resources, results, costs and funding source.

There will always be some set of services, communications or computer based, where it will be in the best interest of the university to have central funding.

UTCS will be implementors and integrators rather than developers of systems.

UTCS Strategic Position

1. UTCS will provide facilities compatible with vendor independent standards whenever possible.

2. UTCS will be the primary provider of telecommunications services on campus providing the widest possible connectivity, including interconnection between locally owned and operated networks.

3. There will be at least one integrated computer/communications environment supported and operated by UTCS available on the university network. UTCS should supply the appropriate interfaces for both effective user-friendly interaction and application-level communications.

continued...

UTCS Strategic Position continued

4. UTCS will take on a much greater role in providing expertise in implementing and facilitating the use of information technology rather than just selling machine cycles and simple network connections.

5. UTCS will support application packages which allow users the flexibility to store their data and process it on the facilities which are the most appropriate.

6. UTCS will offer a much broader range of cost effective computer and communication facilities management services.

7. At any point, UTCS will offer a carefully selected set of microcomputer support services consistent with the current environment.

8. There will be a number of services supplied and supported by UTCS and available on the Network (Network Servers) which users can't afford on their own or which have been determined to be most appropriately provided centrally such as:

    - Supercomputers
    - High Quality Print or Graphic Output
    - Fourth Generation Languages
    - Scanners
    - Publicly Available Data Bases
    - Tape Storage and Retrieval
    - Staging Facilities for Large Amounts of Data

9. Network Servers should be usable from a number of systems in a fashion consistent with each system's local operation.

10. UTCS will have the financial and operational freedom to offer, expand, modify, or discontinue self-funding services, including the flexibility to pursue highly leveraged opportunities which bring external money into the university.

11. UTCS will have staff with the internally developed expertise, breadth of experience and adaptablity to adjust to changing circumstances and technology.

Microcomputer News

The Microcomputer Support Group (MSG) now has available a collection of programs called XENODISK that translates 83 distinct kinds of 5 1/4" diskette formats into IBM PC format, and vice versa. It is similar to a popular Osborne program, Media Master, but handles several times the number of formats, including both single and double-sided ones. Among these are Altos, Cromemco (2 kinds), DEC Rainbow, DEC VT180, Epson QX10 (3 kinds), Kaypro II, Morrow (2 kinds), Osborne (DD), Superbrain (2 kinds), TRS80 Colour Computer, Xerox 820, and Zenith (7 kinds). Notably absent are Apple and Commodore.

Users who wish to know more about XENODISK or have questions about data transfer please contact me at 978-5071.

Dr. Willard McCarty

Microcomputer Maintenance Service

UTCS is considering providing a maintenance service for microcomputers. Initially, this will cover IBM PC and PC/XT systems. Three types of services are possible: annual on site, depot contract, or time and materials ($50/hr). At present, we are trying to assess the demand for such a service. If you are interested, please contact Kam Mark at 978-5050, or Joan Massingham at 978-4464.

Projected Rates

Hardware	Mono Display	Colour Display	Type of Service
PC System/Keyboard, 256 KB RAM, 2 x 320 KB Diskette, Adapter Boards.	$250	$300	On Site
	$175	$225	Depot
PC/XT System/Keyboard, 256 KB RAM, 1 x 10 MB Fixed Disk, 1 x 320 KB Diskette, Adapter Boards.	$500	$550	On Site
	$375	$400	Depot

Norman Housley

New Text Processing Course for GP UNIX!

Now that accounts are generally available on the GP UNIX system, UTCS is once again offering the course: TXT/UNIX103 "NROFF and TROFF on GP UNIX." All required documentation is handed out during the course. The teaching workbook used in the course is called UTCS Guide to Text Processing on GP UNIX. It has been completely revised for use by anyone interested in learning how to use GP UNIX for text processing and is written especially for the first time computer user. This Guide is lengthy (about 120 pages) and covers virtually everything you need to know for text processing: the GP UNIX system, text editing, and text formatting. Each section contains many exercises and examples which help you to learn by doing.

If you cannot attend the course, you can purchase the documentation at the UTCS Information Office, Engineering Annex, Room 206.

In the course, the Guide will be supplemented by instruction, explanation, and discussion with the instructor. The emphasis is on becoming familiar with text processing on GP UNIX, and that means using the system as much as possible. A current GP UNIX account is required throughout the course. For more information about GP UNIX courses, contact Irene Rosiecki at 978-4548.

Patricia Hood

One Giant Step for FORTRAN Users

In January 1985, Release 1.3.1 of IBM VS FORTRAN will become the production version at UTCS. This version has a number of enhancements over previous versions including improved error messages, better traceback messages with statement numbers and full character passing compatibility with UTCS plot routines.

Here are some of the important differences that users will have to consider:

- This version will be installed with language level 77 as default. This is a major change from the present compiler and many programs currently being compiled and executed will need some minor

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FORTRAN Users continued

changes in the JCL to work under the new release. The current FOR(T) catalogued procedures (FORT, FORTGO, FORTGOUL, FORTLE, FORTLEGO and FORTPLOT) compile under language level 66. With the new compiler, those who wish to compile older programs will have to specify LANGLVL(66) on the EXEC statement in the job:

```
// EXEC FORTLEGO,PARM.FORT='LANGLVL(66)'
```

Rather than use the older language level 66, users may choose to make changes to their program source statements to make them compatible with the FORTRAN 77 standard. This will not only allow their programs to execute for many years to come without change; they will also be more portable as FORTRAN 77 compilers become available on all mainframes and most microcomputers. In addition, FORTRAN 77 offers character variable type declarations, and proper use of character variables means no changes to the program source are required when the program is used on machines with different word sizes (i.e. 32-bit, 64-bit, 16-bit computers).

Note that those who continue to use language level 66 should also continue to use the old (1974) FORTRAN IV publications. Language level 77 users should refer to the new VS FORTRAN Release 3 manuals.

- For users who store compiled load modules, there are differences in the runtime libraries used by 1.3.1, and all modules compiled using the VS FORTRAN Release 1.1.1 compiler must be recompiled. We realize that this may be an inconvenience for some users, but the new library should make load modules run a bit faster in some cases.

  Load modules created under the new release of the compiler will be larger than before due to increased data stored for diagnostic and traceback purposes. There are options available to supress this information. For more information contact Advising Services at 978-HELP.

- Another change from our current release concerns the suppression of source listings. There are two options controlling source listings in the new release. In order to turn off the listing, BOTH of these options must be turned off. To suppress the source statement listing, you must code PARM.FORT='NOSOURCE,NOSRCFLG'.

- Our experience with the new compiler has shown that when an error condition occurs, the diagnostics produced are much better. In some cases these diagnostics include a complete dump. This may involve thousands of lines of output. Be sure to set line limits to a reasonable value when debugging programs.

- The new catalogued procedures that invoke VS FORTRAN Release 1.3.1 do not support the old LEVEL keyword used to access these older G1 and H Extended compilers. These compilers should not be necessary. A message to the effect "SYMBOL NOT DEFINED IN PROCEDURE" may mean that the LEVEL keyword has been used with the new procedures.

- The FOR(V) catalogued procedures (FORV, FORVGO, FORVGOUL, FORVLE, FORVLEGO, and FORVPLOT) will be removed from the system at this time. Those using these procedures should switch to the corresponding FOR(T) procedure.

- The @PROCESS SC option is no longer needed. This was used to force the compiler to generate character strings that could be passed properly to older language level 66 routines using Hollerith strings. The new compiler automatically handles this condition.

If you have any questions about these changes please contact Advising Services at

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FORTRAN Users continued

978-HELP. To make the transition to the new release smoother, you can start converting your programs immediately by using the FOR(N) catalogued procedures (FORN, FORNLE, FORNLEGO, FORNGO, FORNGOUL and FORNPLOT). Then you can see exactly what changes, if any, must be done to make your programs run correctly after the January change.

Herb Kugel
Terry Jones

WYLBUR COLLECT Conference - August 1984

The most recent meeting of COLLECT, the OBS WYLBUR users' conference, took place in Miami last August. It is sponsored by On-line Business Systems of San Francisco (OBS), vendors of the version of WYLBUR used at UTCS. COLLECT is held semi-annually, in conjuction with SHARE, the conference for IBM mainframe users.

COLLECT usually attracts delegates from various organizations in the United States and Canada, the majority representing university computer sites. It provides a useful forum for both the computer user (UTCS) and the computer software designer (OBS). Requests can be made, bugs fixed and information exchanged between users. This happens in a number of ways.

For example, in the months before the conference, each site prepared a list of bugs and requests to be submitted to OBS. At the same time, sites completed an OBS-supplied ballot containing a list of 80 or 90 bugs, fixes in progress or requests for new features, already presented to OBS. The results of the balloting at all OBS WYLBUR installations determine the priority that OBS places on each item. At COLLECT, the ballots were turned over to OBS, and the major items were discussed. OBS promised to report within 6 months to a year regarding any progress made on the major items. Major improvements appear from time to time on update tapes that OBS sends to all customers.

Another item on the agenda was Version 7, the latest release of WYLBUR. Representatives from installations that had already released Version 7 to their users talked about their experiences. All agreed that there were no problems in the actual installation of the new version into their systems. The first response from users seemed to range from favourable to really pleased.

Version 7 has a fullscreen editor that looks and acts much like the fullscreen editor of TSO/ISPF, while retaining the editing commands of WYLBUR. This feature seemed to please a great many users. TSO/ISPF allows editing commands to be typed on top of the line numbers on the left of the screen instead of forcing the user to return to the command line to enter an editing command.

For more information on Version 7, please see "WYLBUR Release 7" (next article).

Conferences such as COLLECT also provide an opportunity to make useful contacts which may come in handy the next time we have a problem here at UTCS. I can call these people, whether they be in St. Louis or Vancouver, to find out if they have had similar problems and if so, how they dealt with them. If they haven't had the same problem, I can warn them to look out for it. So, every time you send a suggestion, gripe, or comment using "do gripe", it may also end up being discussed on an international scale. When we fix a problem that belongs to you, we may also be fixing a problem that belongs to a researcher in Colorado.

Steve Younker

WYLBUR Release 7

WYLBUR users will be happy to know that the latest version of WYLBUR has arrived and will be released in early January. The actual date will be advertised in HOTNEWS and in the NEWS headlines when you sign on to WYLBUR.

WYLBUR documentation will be updated for Release 7 and will become available when the new version comes on stream. The following changes in documentation will take effect:

WYLBUR Reference Manual	- updated to Release 7
WYLBUR 7 Release Guide	- new manual describing the new features of WYLBUR 7
WYLBUR Reference Card	- updated to Release 7
WYLBUR 6 New Features Guide	- removed from the system
UTCS Guide to WYLBUR	- updated to Release 7
UTCS WYLBUR Tutorial	- updated to Release 7

There will be no changes to: the WYLBUR User's Guide
the WYLBUR QWIK File Guide

The major changes are described fully in the Release Guide, which is about 60 pages long.

There are two major differences between WYLBUR 6 and WYLBUR 7. First, the window display is slightly different in Version 7. The line numbers on the left of the screen are now 5 digits in length as a default instead of the usual variable length. The WINDOW display uses two more lines at the top of the screen to display information about the data in your ACTIVE file. It now displays information such as the number of lines in your ACTIVE file, and the DCB of the EXTERNAL file that is presently being edited.

Also, when you issue the UPDATE command by itself without an accompanying line number, it will leave the cursor at the home position rather than on line 1.

The use of the linefeed key on 3270 type terminals will work in the following manner. When the linefeed key is pressed, the cursor will not move to column 1 of the next line in the ACTIVE file, but instead will move so that it will be under the line number of the next line in the ACTIVE file. This will enable you to enter editing commands over the line numbers rather than being forced to return to the home position.

The use of these new fullscreen editor commands is described in detail in the new Release Guide. However, you are not forced to use these new features. You may turn them off by typing:

```
set window nolnc
```

After typing the above command, WYLBUR WINDOW mode will act just as it did in Version 6.

The other major difference is the way WYLBUR 7 handles EXEC file errors. Users who write their own EXEC files should obtain copies of:

- the new WYLBUR 7 Reference Manual
- the new WYLBUR 7 Release Guide
- the new WYLBUR 7 Messages & Codes

Those using the LOCATE command in the LOGON member of the LIB dataset may experience an EXEC BREAK while signing on to WYLBUR. If WYLBUR notices that there are no jobs in the users' queues, it will issue an error and terminate the LOGON member. This means that any command that comes after the LOCATE command in the LOGON member has not been executed.

There are two ways to avoid this problem. The "quick and dirty" way is simply to move the LOCATE command to the end of the LOGON member, just before the CLEAR EXEC command. If you choose this way, you will never get a JOB NOT

continued...

WYLBUR Release 7 continued

FOUND message if there are no jobs in your queue when you log on. Instead, you will see EXEC BREAK. The danger with this is that if something should go wrong earlier in your LOGON and it causes an EXEC BREAK, you won't know that you have a different problem.

The "right" way to fix LOCATE is to insert three statements into the LOGON member. A sample LOGON member and the required changes are displayed below.

```
1.   set terse
2.   set noscroll
3.   locate
4.   set destination eat
5.   define pfk6 as 'run fetch'
6.   clear exec
```

WYLBUR 7 will cause the LOGON member to terminate at line 3 if there are no jobs in the users' queues at logon time. The following statements avoid the error.

```
1.   set terse
2.   set noscroll
2.1  on error 3.2 quiet
3.   locate
3.1  exec 4
3.2  comm JOB NOT FOUND
4.   set destination eat
5.   define pfk6 as 'run fetch'
6.   clear exec
```

In this example, the EXEC file branches around the LOCATE statement and issues the familiar JOB NOT FOUND message. Of course, if there are jobs in the queues, e.g. two jobs awaiting fetch, they will be displayed as usual.

Please note that the line numbers apply only to the example shown. Any fix that you apply to your EXEC file will have to refer to your own line numbers. If your LOCATE statement was on line 17, you would now have line numbers 16.1, 17.1, and 17.2. Line 17.1 would read "exec 18", and line 16.1 will read "on error 17.2 quiet". CAUTION: After applying this fix, you cannot renumber your LOGON member without also renumbering the new lines.

The fix isn't as complicated as it looks. If you have problems understanding what has to be done, please call Advising Services, at 978-HELP; the people there will be glad to assist you.

WYLBUR 7 has other features that you may find very useful. Three are listed below.

1. A **SORT** command for sorting fields within an ACTIVE file.
2. A **TRANSLATE** command for "character-for-character" translation. This command could be used to translate individual strings or whole ACTIVE files from UPPER to LOWER case or from LOWER TO UPPER case.
3. A **RENAME** command that will rename members of a PDS. The Reference Manual states that you may RENAME entire datasets as well as members of a PDS. UNFORTUNATELY, THE RENAME COMMAND DOES NOT YET WORK PROPERLY WITH ENTIRE DATASETS. Please restrict its use to renaming members of PDS's ONLY. The vendor has promised that the dataset renaming capability is being worked on and a fix will be forthcoming. When we receive the fix, we shall release it immediately.

At a recent WYLBUR users' conference everyone expressed satisfaction with the new version. I would be very interested to hear about UTCS users' experiences with Version 7. You can let me know about yours by using the GRIPE EXEC file. For HELP on the GRIPE EXEC file, type: do gripe?

Your suggestions and comments help us make WYLBUR a better terminal system.

Steve Younker

NTSYS 1983

NTSYS (Numerical Taxonomy SYStem) is a collection of programs for performing a variety of operations upon matrices. NTSYS focuses mainly on applications in the area of multivariate statistical analysis with emphasis on methods useful in numerical taxonomy, such as cluster analysis and factor analysis. Through the generosity of the Department of Zoology, UTCS recently acquired NTSYS Version 4, Level 6, which has many new features (the current release of NTSYS is Version 3, which was installed in 1974).

Five new programs have been added to NTSYS. AHCS performs linear adaptive hierarchical cluster analysis. CONCENSUS computes several kinds of concensus trees between two classifications. Another new program is KGROUPS, which performs a cluster analysis in which a set of elements is divided into function point clusters. Many people will find MXPLOT (matrix plot) useful. It prepares bivariate scatter diagrams, which plot pairs of rows and/or columns of the matrix. Finally, there is a program called ROTFIT, which rotates and reflects a given matrix to a position that gives a least squares fit to another matrix, and computes Gower's M2 criterion of fit.

To use NTSYS, code the following JCL:

```
// JOB
// EXEC NTSYS
//SYSIN DD *
  :
  NTSYS Statements
  :
/*
//
```

To get the new NTSYS documentation, run the following job:

```
// JOB
/*JOBPARM L=5
// EXEC NTDOC
//
```

By default, NTDOC prints the manual on the Xerox 8700 using forms YBAD, which gives double sided, 1-up portrait output without holes. It is possible to change this through the FORMS= parameter:

```
  // EXEC NTDOC,FORMS=YAAA
```

NTSYS has a product support level of C. This means that UTCS does not support the product, but only makes it available on the system. Advising Services will not normally help people with problems.

Diane Mitchell

A New SAS Manual: Help for Batch & TSO Users

The SAS Companion for OS Operating Systems and TSO, 1984 Edition is the newest addition to the SAS Institute's long list of publications. It contains supplementary information to the *SAS User's Guide:Basics.* It is expected that everyone using SAS at UTCS will find this manual extremely useful.

The first chapter supplies an introduction to the OS SAS system, suggests how new and experienced users might use the book, and supplies references. Chapter 2 covers modes of execution and explains the differences between Batch and interactive processing, as well as discussing some of the cost aspects of each method. Chapter 3 gives an introduction to working with Batch jobs (including JCL and OS data sets), while Chapter 5 deals more specifically with SAS jobs in a Batch environment. Chapter 4 explains several concepts about SAS data

continued...

SAS continued

libraries, such as the different structures and how to calculate space. Chapter 7 gives an introduction to TSO, and Chapter 8 contains information about SAS sessions under TSO. There are also several appendices, which cover additional interfaces with the OS Operating System (such as ISPF), and a glossary of JCL statements and TSO commands used in the book.

This new companion is very well written. It brings together information that was spread among several SAS and IBM manuals, and explains in more detail several concepts which are only mentioned in the Basics Guide. A copy of the OS Companion is available for reference in the UTCS Information Office, and copies can also be purchased there.

Diane Mitchell

SAS and the 8700

Every month thousands of advertisements end up in home mailboxes, many of them personalized with the resident's name and address. This type of advertising has proven to be an effective approach to getting the message across. Now, you can take advantage of this approach when you do your next survey, fund-raising campaign, or advertisement here at the University of Toronto.

Using SAS and the 8700 laser printer, you can generate "personalized" form letters, announcements, or reminders with little effort and cost. First, you construct a SAS database of names and addresses (or whatever information is used to personalize the mailing). Then, you prepare your form letter using tools in SAS. Your information in the database can be combined with the form letter and printed on the 8700 laser printer using specially supplied or default paper. For one recent application requiring 3000 letters, it took two hours to produce the first form letter using SAS. (A second letter took only half an hour!) The merging of the database material with the letter took about five minutes, and the printed letters were available from the 8700 about an hour and a half later. Excluding the cost of developing the SAS program, the processing and printing charge for each letter was about 6 cents, most of it for printing.

If you need to reach a wide audience in a personalized way, contact UTCS about generating form letters using SAS and the 8700 laser printer. You'll be surprised at how little time and money it takes!

Patricia Hood

Changes to the File Transfer Services

Recently UTCS made a number of changes to the File Transfer Service (FTS). The most important of these allows the user to select the translate table to be used for transfers from the FTS to the IBM MVS system.

These translate tables determine how ASCII characters on the FTS are transformed to EBCDIC characters on the IBM. In particular, the new translate table called "Printer" will allow for the printing of a number of characters such as brace brackets ({ and }) on IBM printers, including the 8700 laser printer.

continued...

File Transfer Service continued

For more information, type "Help New" on the FTS, or see the detailed description in the UTCS Guide to File Transfer Service (MANUAL=FTS).

Philip Murton

Christmas & New Year's Hours of Service

UNIVERSITY OF TORONTO COMPUTING SERVICES
CHRISTMAS & NEW YEAR'S HOURS OF SERVICE

	24 Mon.	25 Tues.	26 Wed.	27 Thurs.	28 Fri.	29 Sat.	30 Sun.	31 Mon.	1 Tues.	2 Wed.
BICS Service	X	X	X	X	X	X	X	X	X	N
IBM 3033/N12 Services	UO	UO	UO	UO	UO	UO	UO	UO	UO	N
DECsystem-1090 Services	UO	UO	UO	UO	UO	UO	UO	UO	UO	N
GP UNIX Service	UO	UO	UO	UO	UO	UO	UO	UO	UO	N

Legend

X - service unavailable
N - normal hours of service
UO - unattended operation:

- for the IBM 3033/N12 computer, all services except GPJS Classes B and E (jobs requiring intervention), Calcomp and Gould plotting, and Xerox 8700 output are available

- for the DECsystem-1090 computer, all services except tape mounts are available

- for the GP UNIX service, all services except tape mounts, the Varian plotter, and the CAT phototypesetter are available

During the period of unattended operation the Arts and Science Terminal and the Education and Research Interactive Terminal Room, will be closed. It is planned to have the Engineering Annex Terminal open on a limited basis during the holiday period. Please check at this site for precise arrangements.

Users should note that this is a tentative schedule and may be altered via HOTNEWS and alert notices closer to the Christmas period.

UTCS Noncredit Short Courses

UTCS offers a number of short, noncredit courses on the use of various products and services that we support. These courses are available to students, faculty and staff of the University of Toronto, as well as to other users of our system. Complete course descriptions for these and other noncredit courses offered at UTCS are available at the Information Office, Engineering Annex, Room 206, and at the Accounting Services Office, McLennan Labs, Room 337.

All short courses are held in the UTCS Education Facility, Room 221, McLennan Physical Laboratories. Due to the limited seating capacity in the Education Facility, and the number of terminals available for our hands-on courses, registration is required for short courses.

Please note that we reserve the right to cancel courses, if registration is too low.

Anyone interested in taking any of these courses must register in person with:

Educational Services Support Specialist
Engineering Annex, Room 207
978-4565

A nonrefundable Administration Fee of $10 per course is due at the time of registration. It may be paid by cash, cheque or on a Customer Account Number (CAN).

(Anyone interested in credit courses should contact the Department of Computer Science at 978-6360).

The following courses are offered in January:

SAS101 - Introduction to SAS

DATE: January 14-18, 1985
TIME: 2:00-4:00 p.m.

SAS/TSO101 - Introduction to SAS/TSO

DATE: January 14-25, 1985 (Mon.-Fri.)*
TIME: 10:00 - 12:00 noon

TXT/DEC101 - SOS and SCRIBE on the DEC-10

DATE: January 28 - February 1, 1985
TIME: 9:30-12:30 p.m.

TXT/SCR102 - SCRIBE Formatter

DATE: January 31 - February 1, 1985
TIME: 9:30 -12:30 p.m.

TXT/UNIX103 -NROFF and TROFF on GP UNIX

DATE: January 7-11, 1985
TIME: 9:30-12:30 p.m.

* Course Full. Registrations now accepted for a later course.

Irene Rosiecki

Change Committee

Changes to the Academic IBM 3033/N12 System

1. A 1403 line printer at the Robarts Library computing site was replaced with an SSI 600 line per minute printer on October 3.
2. A CDC workstation at the Arts and Science terminal was replaced with an SSI 600 line per minute printer on September 29.

continued...

Change Committee continued

Changes to the Administrative IBM 4341 System

1. SAS 82.3 was removed from the IBM 4341 Administrative computer on October 8.

Changes to PACX

1. The PACX inventory is being used as the database for loading PACX as of September 26. This allows for faster reloading and better administrative control.

Changes to WYLBUR

1. The commands SET and SHO PGMRNAME have been supported on WYLBUR since September 24.
2. Accounting procedures for Release 7.0 of WYLBUR were installed on October 12. This release is currently being tested internally.
3. The DO DOCUMENT command on WYLBUR was upgraded on October 23.

Changes To TSO

1. An updated version of the DOCUMENT command on TSO is now available. It provides upward compatible features such as online ``browse'' and a new``index'' manual.
2. Logfile was converted to VSAM on October 23 and is expected to improve the reliability of REGISTER/DSMON.

Changes to GP UNIX

1. WRITER'S WORKBENCH was installed on the GP UNIX machine on October 11 for the English Department for use in teaching engineering students.
2. GP UNIX service began production on September 24. Non-statistics PDP-11/70 users have been migrated to this service.

Changes to Other Systems and Services

1. Ten XT-100 terminals were installed in the old EUT terminal site on September 26. They provide engineering students with access to BICS facilities.
2. Termination of 9700 printing services occurred on October 1.
3. MINITAB, a new service for Statistics students, was installed for use on October 1. Access is through CMS.
4. Conversion from 3330 DASD hardware to 3380s was completed on October 8. Anyone who has used IEHMOVE to unload datasets from a 3330 to tape will need to have some access to a 3330 and should contact Advising Services for assistance.

Joan Coutts

Subscription Renewals

In keeping with the policy announced last year, it is now time for *COMPUTERNEWS* readers to renew their subscriptions. Because all subscriptions run from January to January, even new users, who became subscribers automatically when they opened their accounts, must renew at this time if they wish to continue receiving *COMPUTERNEWS.*

To renew, just fill out the Annual *COMPUTERNEWS Subscription Renewal Form* appearing at the back of the October/November and December issues. Any subscription not renewed by the beginning of January will be dropped.

Please remember that this policy helps us keep our mailing costs down and continue to provide the newsletter free of charge.

Martha Parrott

Personnel Changes

Shirley Manimalethu left the Scarborough College Site as of November 9, 1984 for employment outside the university.

Elizabeth Weitmann

Recent Aquisitions in the Computer Library

Beineke, Lowell., ed.
Selected topics in graph theory 2,
ed. by L.W. Beineke and R.J. Wilson.
London, Academic Press, 1983.

Brodie, Leo.
Starting FORTH: an introduction to
the FORTH language and operating
system for beginners and professionals.
Englewood Cliffs, N.J., Prentice-Hall, 1981.

Elliot, Douglas F. and Rao, K.R.
Fast transforms: algorithms, analyses,
applications.
New York, Academic Press, 1982.

Gilman, Leonard, and Rose, A.J.
APL: an interactive approach. 3d ed.
New York, Wiley, 1984.

Goldberg, Adele.
Smalltalk-80: the interactive programming
environment.
Reading, Mass., Addison-Wesley, 1984.

Gonzalez, Rafael C. and Thomason, M.G.
Syntactic pattern recognition: an
introduction.
Reading, Mass., Addison-Wesley, 1978.

National Computer Conference.
Proceedings.
v.53 (1984).

Yvonne George

New UTCS Documents

To print online documents on

- IBM
  - WYLBUR users type "do document"
  - TSO users type "help document"
  - APL users type ")LOAD 1 UTCSGUIDE<CR>HELP"
- DECsystem-10
  - use iprint or SOS/R command
- GP UNIX
  - use ipr or cat command

Recommended forms code for the 8700 is YXLE.

New UTCS Documents in hardcopy

Previously announced:

- UTCS GUIDE TO PRODUCTS AND SERVICES: Introduction
- UTCS GUIDE TO PRODUCTS AND SERVICES: Basics
- UTCS GUIDE TO PRODUCTS AND SERVICES: Accounting
- UTCS Catalogue: Access, Part 1
- UTCS Catalogue: Access, Part 2
- UTCS Catalogue: Numerical Products
- UTCS Catalogue: Storage
- UTCS Catalogue: Text Products
- UTCS Guide to Census Tapes
- UTCS Guide to File Transfer Service
- UTCS Guide to GP UNIX
- UTCS Guide to Highspeed Printing
- UTCS Guide to KERMIT
- UTCS Guide to Mainframe File Transfer Facility
- UTCS Guide to SCRIBE
- The SOS Workbook

New UTCS Guides online

- UTCS GUIDE TO PRODUCTS AND SERVICES: Basics
  - IBM: MANUAL=BASICS
  - DEC: DOC:BASICS.DOC
  - GP UNIX: /usr/doc/utcs/basics
- UTCS Guide to TSO (Draft)
  - IBM: MANUAL=TSOGD

Previously announced:

- UTCS Guide to APL
  - IBM: MANUAL=APLGD
- UTCS Guide to APL XFR
  - IBM: MANUAL=APLXFR
- UTCS Guide to Census Tapes
  - IBM: MANUAL=CENSUS
  - DEC: DOC:CENSUS.DOC
  - GP UNIX: /usr/doc/utcs/census
- UTCS Guide to File Transfer Service
  - IBM: MANUAL=FTS
  - DEC: DOC:FTS.DOC
- UTCS Guide to GPJS
  - IBM: MANUAL=GPJSX
  - DEC: DOC:GPJS.DOC
  - GP UNIX: /usr/doc/utcs/gpjs
- UTCS Guide to Highspeed Printing
  - IBM: MANUAL=PRINT
  - DEC: DOC:PRINT.DOC
  - GP UNIX: /usr/doc/utcs/print
- UTCS Guide to IBM MVS Online Storage
  - IBM: MANUAL=IBMDISK
- UTCS Guide to KERMIT
  - IBM: MANUAL=KERMIT
  - DEC: DOC:KERMIT.DOC
  - GP UNIX: /usr/doc/utcs/kermit
- UTCS Guide to Mainframe File Transfer Facility
  - IBM: MANUAL=MFTF
- UTCS Guide to Paper Tapes
  - IBM: MANUAL=PAPTAPE
- UTCS Guide to SCRIBE
  - DEC: DOC:SCRIBE.DOC
  - (For printing instructions, see page 1 of document.)
- UTCS Guide to Series/1 Terminal Use
  - IBM: MANUAL=SERIES
  - 3270 Emulation:
  - UTCS Guide to
    - Cybernex APL100 and Volker Craig VC404 (MANUAL=CYBER)
    - DM1520 (MANUAL=DM1520)
    - Hardcopy Terminal (MANUAL=HARDCOPY)
    - IBM 3101 (MANUAL=IBM3101)
    - SOROC IQ (MANUAL=SOROC)
    - VT52 (MANUAL=VT52)
    - VT100 (MANUAL=VT100)
- UTCS Guide to TFW.MAK in SCRIBE
  - DEC: DOC:TFW.DOC
- UTCS Guide to WYLBUR
  - IBM: MANUAL=WYLINTRO
- UTCS WYLBUR Tutorial
  - IBM: MANUAL=WYLTUTOR

Cumulative Index for 1984

This cumulative index includes all *COMPUTERNEWS* issues in 1984, that is, numbers 212 through 219 inclusive. Articles are referenced by title, issue number, and page number; they are listed under subject headings by issue number.

- Accounting
  - Research Year End 212, 7
  - Let's Talk About It: High Qual 213, 1
  - Charging for Online Storage (3 213, 8
  - Let's Talk About It: Brave New 215, 1
  - Revised UTCS Rates 215, 2
  - A Few Hints to Improve Through 215,21
  - Change Committee 215,28
  - The 8700 Laser Printer: Accoun 216,12
  - New Charging Methods for Print 216,13
  - Accounting Services 217, 6
  - Protect Your Codes 217, 7
  - New Internal Rate Schedule 218, 3
  - UTCS Internal Rate Schedule 218, 4
- Advising, see also Consulting
  - Research Year End 212, 7
  - Recommended Procedure to Fol 212,10
  - Advising Services 213, 5
  - Advising Service TC Analysis 215,16
  - New Online Help for Support Cl 215,20
  - GRIPE Facility Extends to TSO, 216,25
  - Change Committee 216,29
  - 978-HELP 217, 5
  - Change Committee 217,22
- APL
  - Recommended Procedure to Fol 212,10
  - The APL High Speed Print Utili 213,10
  - Change Committee 213,15
  - Documenting an APL Utility 214, 2
  - The UTCS Guide to APL XFR 214, 5
  - Converting to HSPRINT 216,19
  - Announcing New APL Workspac 216,20
  - The May 1983 Release of Sharp 216,21
  - Change Committee 216,29
  - Using the 8700 Laser Printer f 217,18
  - Change Committee 217,22
- BICS, see Student Services
- BMDP
  - BMDP '83 213,11
  - BMDP '83 214, 9
- CALCOMP, see also Graphics
- CENSUS Tapes, see also Statistics
- Change Committee
  - Change Committee 212,15
  - Change Committee 213,15
  - Change Committee 214,10
  - Change Committee 215,28
  - Change Committee 217,22
  - Change Committee 218,24
  - Change Committee 219,12
- Charges, see Accounting
- Class, see Job Class, Support Class
- CMS, see VM/CMS
- COBOL
  - COBOL Upgrade at UTCS 218,22
  - Change Committee 218,24
- Communications, see also PACX, Seri
- Computer Users, see UTCS Users' Com
- Concordances
  - COGS and OCP: Concordance Pac 212,14
  - Humanities News - Status of CO 216,15
- Conferences, see also DECUS, SHARE
  - Uniforum, January 1984 213, 4
  - OUCC 1984 217, 9
  - WYLBUR COLLECT Conference 219, 6
- Consulting
  - Advising Profile 212, 7
  - Advising Services 213, 5
  - Microcomputer News 215,23
  - UTCS Microcomputer Support 216,14
  - 978-HELP 217, 5
  - Humanities News 217,13
- Datasets, see Disk Storage
- DECsystem-10
  - Procedures and Times for Sched 212, 5
  - 1984 DECUS Canada Symposium 212, 8
  - GALAXY 4.1 Is Coming! 212, 9
  - Change Committee 213,15
  - Change Committee 214,10
  - UTCS Internal Rate Schedule 215, 5
  - New Rates 215,11
  - New DECsystem-10 Help: HELP 215,20
  - New Online Help for Support Cl 215,20
  - A Few Hints to Improve Through 215,21
  - Change Committee 215,28
  - TOPS-10 Version 7.02 Is Here 216, 4
  - The 8700 Laser Printer: How to 216, 8
  - UTCS Terminal Server Network a 217, 8
  - UTCS Noncredit Short Courses 217,21
  - Change Committee 217,22

continued...

Cumulative Index continued

  - DECsystem-10 News 218,12
  - UTCS Noncredit Short Courses 219,12
- DECUS
  - 1984 DECUS Canada Symposium 212, 8
  - Spring DECUS 216, 5
  - Toronto DECUS '84 217,11
  - Spring '84 DECUS 217,12
- Disk storage
  - VOLUME Utility Replaced at UT 212,15
  - Change Committee 212,15
  - Charging for Online Storage (3 213, 8
  - Media Conversion 213,12
  - HSM 213,13
  - DSMAP Changes 213,13
  - UTCS Noncredit Short Courses 213,14
  - UTCS Noncredit Short Courses 214, 9
  - Change Committee 214,10
  - UTCS Noncredit Short Courses 215,27
  - UTCS Noncredit Short Courses 217,21
  - Change Committee 217,22
- Documentation, see also Online, UTC
  - Recent Acquisitions in the Com 212,16
  - Recent Acquisitions in the Com 213,17
  - UTCS Library Reorganization an 214, 2
  - Recent Acquisitions in the Com 214,12
  - Recent Acquisitions in the Com 215,29
  - UTCS Microcomputer Support 216,14
  - Recent Acquisitions in the Com 216,31
  - Technical Reports Recently Rec 216,32
  - Recent Acquisitions in the Com 217,23
  - Technical Reports Recently Rec 217,25
  - Subscription Renewals 218, 1
  - Recent Acquisitions in the Com 218,26
  - Technical Reports Recently Rec 218,27
  - A New SAS Manual: Help for Bat 219,10
  - Subscription Renewals 219,13
  - Recent Acquisitions in the Com 219,14
- Education Facility
  - UTCS Noncredit Short Courses 213,14
  - UTCS Noncredit Short Courses 214, 9
  - UTCS Noncredit Short Courses 215,27
  - UTCS Microcomputer Support 216,14
  - UTCS Noncredit Short Courses 217,21
  - New TSO Course 218, 2
  - UTCS Noncredit Short Courses 218,24
  - UTCS Noncredit Short Courses 219,12
  - New Text Processing Course for 219, 4
- Electronic Mail, see Communications
- Equipment, see Hardware
- Ethernet, see Networks
- Facilities, see Services
- Fiber Optics Network, see Networks
- File Transfer Service, see KERMIT
- Files, see Disk Storage
- The FINALWORD, see SCRIBE
  - UTCS Microcomputer Support 218,11
- Formatters, see Text Processing
- Forms, see Printers
- FORTRAN
  - FORTRAN Interactive Debug Re 213,14
  - Change Committee 213,15
  - SHARE 215,13
  - FORTRAN Level 1.3.1 Available 215,24
  - One Giant Step for FORTRAN U 219, 5
- GOULD, see Graphics
- GP UNIX, see UNIX
- GPJS
  - The 8700 Laser Printer: How to 216, 8
  - GRIPE Facility Extends to TSO, 216,25
- Graphics
  - Let's Talk About It: High Qual 213, 1
  - Gould and Calcomp Support for 213,10
  - Change Committee 213,15
  - Graphics in TSO Full Screen Mo 214, 8
  - SAS/Graph KIG Drivers Upgrade 214, 8
  - The 8700 Laser Printer: Potent 216, 7
  - UTCS Microcomputer Support 216,14
  - IBM Personal Computer Graphics 216,15
  - Drawing Box Plots with SAS/G 216,18
  - Change Committee 216,29
  - Meet the Imaging/Humanities Su 217, 2
  - Change Committee 218,24
- Handicaps, see Disabilities
- Hardware
  - Statistical & Numerical Analys 213, 1
  - New Physics Terminal Site Clos 213, 8
  - MASSCOMP Computer System 215,25
  - Arts and Science Terminal (AST 216,27
  - Terminal Rentals 217,20
- Hours of Service
  - Procedures and Times for Sched 212, 5
  - Change Committee 212,15
  - Hours of Service 213,16
  - Hours of Service 214,11
  - Hours of Service 215,26
  - TSO Running Unattended 216,26
  - Hours of Service 216,28
  - Hours of Service 217,20
  - Christmas and New Years Hours 218,23
  - Christmas & New Year's Hours 219,11
- HSM
  - SHARE 215,13
  - New Online Help for Support Cl 215,20
- Humanities

continued...

Cumulative Index continued

  - Humanities News - Status of CO 216,15
  - Meet the Imaging/Humanities Su 217, 2
  - Humanities News 217,13
- IBM
  - Procedures and Times for Sched 212, 5
  - SORT Default Option Changes at 212,15
  - VOLUME Utility Replaced at UT 212,15
  - Change Committee 212,15
  - An Alternative Path to the Xer 213,13
  - DSMAP Changes 213,13
  - FORTRAN Interactive Debug Re 213,14
  - Change Committee 213,15
  - Graphics in TSO Full Screen Mo 214, 8
  - UTCS Internal Rate Schedule 215, 5
  - New Rates 215,11
  - A Few Hints to Improve Through 215,21
  - FORTRAN Level 1.3.1 Available 215,24
  - PL/I Release 4.0 at UTCS 215,25
  - Change Committee 215,28
  - Class A Region Raised to 1500K 216,26
  - PL/I Release 4.0 Now the Produ 216,26
  - PL/I(F) Procedures Removed 216,27
  - ALGOL F Removed 216,27
  - Change Committee 216,29
  - UTCS Terminal Server Network a 217, 8
  - COBOL Upgrade at UTCS 218,22
  - Change Committee 218,24
  - One Giant Step for FORTRAN U 219, 5
  - Change Committee 219,12
- IMSL
  - IMSL Updated 213,12
  - Change Committee 217,22
- Interactive Services
  - UTCS Changes ISPF/PDF Recov 216,23
- ISPF
  - SHARE 215,13
  - Change Committee 215,28
  - ISPF and PDF at UTCS 216,22
- JCL
  - UTCS Noncredit Short Courses 213,14
  - UTCS Noncredit Short Courses 214, 9
  - SHARE 215,13
  - UTCS Noncredit Short Courses 217,21
  - Out of the JCL, into the Shell 218,17
- Job Class
  - Summer Class E Rate 216,14
  - Class A Region Raised to 1500K 216,26
  - Change Committee 217,22
  - Let's Talk About It: Potpourri 219, 1
- KERMIT
  - Personals and Mainframes: The 212,13
  - Increased Microcomputer Suppor 214, 1
  - Microcomputer News 214, 6
  - KERMIT Update 214, 6
  - File Transfer Service in Produ 215,24
  - Change Committee 215,28
  - Change Committee 217,22
  - Changes to the File Transfer S 219,11
- KIG
  - SAS/Graph KIG Drivers Upgrade 214, 8
  - Change Committee 214,10
- Languages, see also name
  - ALGOL F Removed 216,27
- Let's Talk About It
  - Let's Talk About It: Brave New 215, 1
  - Let's Talk About It: Number Cr 216, 1
  - Let's TAlk About It: 217, 1
  - Let's Talk About It: Potpourri 219, 1
  - Mandate 219, 2
  - UTCS Strategic Position 219, 2
- MARK IV
  - Change Committee 213,15
- Microcomputers
  - Personals and Mainframes: The 212,13
  - Microcomputer News 212,14
  - Uniforum, January 1984 213, 4
  - Media Conversion 213,12
  - For Sale: Arisia System IIIA M 213,14
  - Increased Microcomputer Suppor 214, 1
  - Microcomputer News 214, 6
  - KERMIT Update 214, 6
  - UTCS to Distribute the FinalWo 214, 7
  - SHARE 215,13
  - Microcomputer News 215,23
  - File Transfer Service in Produ 215,24
  - UTCS Microcomputer Support 216,14
  - IBM Personal Computer Graphics 216,15
  - The Microcomputer Support 217, 4
  - OUCC 1984 217, 9
  - Toronto DECUS '84 217,11
  - Spring '84 DECUS 217,12
  - UTCS Microcomputer Support 218,11
  - SPSS/PC on the IBM PC/XT 218,20
  - Change Committee 218,24
  - Microcomputer News 219, 3
  - Microcomputer Maintenance S 219, 4
- NAg
  - NAg Mark 10 212,12
  - Change Committee 214,10
- Networks
  - Let's Talk About It:Local Area 212, 1
  - Change Committee 213,15
  - Announcing NetNorth 216, 2
  - Let's TAlk About It: 217, 1

continued...

Cumulative Index continued

  - Erindale College Site 217, 8
  - UTCS Terminal Server Network a 217, 8
  - OUCC 1984 217, 9
  - Toronto DECUS '84 217,11
  - Change Committee 217,22
  - NetNorth Update 218, 2
  - Change Committee 218,24
- Noncredit Courses, see Education F
- Numerical Analysis, see also IMSL, EISPACK 215,23
  - Let's Talk About It: Number Cr 216, 1
  - The Statistical and Numerical 217, 3
- Online documentation, see also UTCS
  - Documentation Update 218, 1
  - New DOCUMENT Command on 218,18
- Operating Systems
  - UTCS Internal Rate Schedule 215, 5
  - Let's Talk About It: Number Cr 216, 1
  - What are VM and CMS 216,24
- PACX
  - Let's Talk About It:Local Area 212, 1
  - Procedures and Times for Sched 212, 5
  - Change Committee 213,15
  - Change Committee 214,10
  - Let's TAlk About It: 217, 1
  - PACX Class 132 Changes 217,19
  - Change Committee 218,24
  - Change Committee 219,12
- Passwords, see Security
- PDP 11/70
  - Procedures and Times for Sched 212, 5
  - 1984 DECUS Canada Symposium 212, 8
  - Change Committee 213,15
  - Change Committee 214,10
  - UTCS Internal Rate Schedule 215, 5
  - New Rates 215,11
  - Change Committee 215,28
- Personnel Changes
  - Personnel Changes 212,16
  - Personnel Changes 213,17
  - Personnel Changes 214,12
  - Microcomputer News 215,23
  - Personnel Changes 215,29
  - Personnel Changes 216,31
  - Personnel Changes 217,23
  - Personnel Changes 219,14
- PL/I
  - Change Committee 212,15
  - PL/I Release 4.0 at UTCS 215,25
  - PL/I Release 4.0 Now the Produ 216,26
  - PL/I(F) Procedures Removed 216,27
  - Change Committee 216,29
  - Change Committee 217,22
- Plotter, see Graphics
- Printers
  - Let's Talk About It: High Qual 213, 1
  - The 8700 Laser Printer: A Look 216, 6
  - The 8700 Laser Printer: Potent 216, 7
  - The 8700 Laser Printer: How to 216, 8
  - The 8700 Laser Printer: Change 216,11
  - The 8700 Laser Printer: Accoun 216,12
  - The 8700 Laser Printer: User T 216,12
  - New Charging Methods for Print 216,13
  - Announcing New APL Workspac 216,20
  - 1403 Print Setup at Central 216,28
  - The 8700 Laser Printer 217,14
  - Changes for Special Forms User 217,15
  - Using the 8700 Laser Printer f 217,18
  - Change Committee 218,24
  - Change Committee 219,12
- Rates, see Accounting
  - UTCS Internal Rate Schedule 215, 5
  - New Rates 215,11
- Remote sites
  - New Physics Terminal Site Clos 213, 8
  - Arts and Science Terminal (AST 216,27
  - Change Committee 216,29
  - Scarborough College Site 217, 7
  - Erindale College Site 217, 8
  - UTCS Terminal Server Network a 217, 8
- SAS
  - SAS/FSP - Some Application Ide 212,11
  - SAS/OR 212,12
  - Change Committee 212,15
  - UTCS Noncredit Short Courses 213,14
  - Change Committee 213,15
  - Graphics in TSO Full Screen Mo 214, 8
  - SAS/Graph KIG Drivers Upgrade 214, 8
  - UTCS Noncredit Short Courses 214, 9
  - Change Committee 214,10
  - The Census Tape Project 215,21
  - SAS 82.4 Now Available 215,22
  - UTCS Noncredit Short Courses 215,27
  - Drawing Box Plots with SAS/G 216,18
  - Change Committee 216,29
  - Where Do Toronto's Wealthy Liv 217,16
  - CANSIM Data and Retrieval Prog 217,17
  - How to Convert SPSSX System Fi 217,17
  - UTCS Noncredit Short Courses 217,21
  - Change Committee 217,22
  - New TSO Course 218, 2
  - Saving Pages with SAS 218,19
  - UTCS Noncredit Short Courses 218,24
  - A New SAS Manual: Help for Bat 219,10

continued...

Cumulative Index continued

  SAS and the 8700 219,10
  UTCS Noncredit Short Courses 219,12
Screens, see Terminals
SCRIBE
  Personals and Mainframes: The 212,13
  UTCS Noncredit Short Courses 213,14
  Increased Microcomputer Suppor 214, 1
  UTCS to Distribute the FinalWo 214, 7
  UTCS Noncredit Short Courses 214, 9
  Change Committee 214,10
  UTCS Noncredit Short Courses 215,27
  New SCRIBE Manual 217,13
  UTCS Noncredit Short Courses 217,21
  Change Committee 217,22
  SCRIBE: Prescriptions for Larg 218,14
  Expanding Horizons: SCRIBE and 218,16
  UTCS Noncredit Short Courses 218,24
  UTCS Noncredit Short Courses 219,12
Security
  Protect Your Codes 217, 7
  DECsystem-10 News 218,12
Series/1
  Change Committee 212,15
  PACX Class 132 Changes 217,19
  Change Committee 217,22
Services
  Microcomputer Maintenance S 219, 4
SHARE
  SHARE 215,13
Short Courses, see Education Faci
Software
  UTCS Microcomputer Support 216,14
SOS
  UTCS Noncredit Short Courses 213,14
  UTCS Noncredit Short Courses 215,27
  UTCS Noncredit Short Courses 217,21
SPSS
  SPSS-X Release 2.0 216,16
  How to Convert SPSSX System Fi 217,17
  Change Committee 217,22
  UTCS Microcomputer Support 218,11
  SPSS/PC on the IBM PC/XT 218,20
Statistics
  SAS/FSP - Some Application Ide 212,11
  SAS/OR 212,12
  Change Committee 212,15
  SNAC Support Group Objectives 213, 3
  Gould and Calcomp Support for 213,10
  BMDP '83 213,11
  Change Committee 213,15
  1981 Census Tapes 214, 8
  BMDP '83 214, 9
  The Census Tape Project 215,21
  SAS 82.4 Now Available 215,22
  Change Committee 215,28
  SPSS-X Release 2.0 216,16
  Drawing Box Plots with SAS/G 216,18
  Change Committee 216,29
  The Statistical and Numerical 217, 3
  Where Do Toronto's Wealth Li 217,16
  CANSIM Data and Retrieval Prog 217,17
  How to Convert SPSSX System Fi 217,17
  Saving Pages with SAS 218,19
  SPSS/PC on the IBM PC/XT 218,20
  NTSYS 1983 219, 9
  A New SAS Manual: Help for Bat 219,10
  SAS and the 8700 219,10
Student Services
  Change Committee 219,12
Supplies, see Accounting
Surveys
  Advising Profile 212, 7
Tapes
  Media Conversion 213,12
  HSM 213,13
  1981 Census Tapes 214, 8
  The Census Tape Project 215,21
  Where Do Toronto's Wealthy Li 217,16
  CANSIM Data and Retrieval Pr 217,17
Terminal Server Network, see Networ
Terminals
  MASSCOMP Computer System 215,25
  Terminal Rentals 217,20
Text Processing
  Personals and Mainframes: The 212,13
  COGS and OCP: Concordance Pa 212,14
  Microcomputer News 212,14
  Change Committee 213,15
  Change Committee 214,10
  The 8700 Laser Printer: A Look 216, 6
  The 8700 Laser Printer: Potent 216, 7
  The 8700 Laser Printer: How to 216, 8
  Meet the Imaging/Humanities Su 217, 2
  New SCRIBE Manual 217,13
  UTCS Microcomputer Support 218,11
  SCRIBE: Prescriptions for Larg 218,14
  Expanding Horizons: SCRIBE and 218,16
  Out of the JCL, into the Shell 218,17
  UTCS Noncredit Short Courses 218,24
  Let's Talk About It: Potpourri 219, 1
  New Text Processing Course for 219, 4
  UTCS Noncredit Short Courses 219,12
Timesharing, see Interactive Serv
TSO

continued...

Cumulative Index continued

  - Graphics in TSO Full Screen Mo 214, 8
  - SHARE 215,13
  - New Online Help for Support Cl 215,20
  - The 8700 Laser Printer: How to 216, 8
  - IBM Personal Computer Graphics 216,15
  - ISPF and PDF at UTCS 216,22
  - GRIPE Facility Extends to TSO, 216,25
  - TSO Running Unattended 216,26
  - Change Committee 216,29
  - New TSO Course 218, 2
  - UTCS Noncredit Short Courses 218,24
  - Change Committee 218,24
  - A New SAS Manual: Help for Bat 219,10
  - UTCS Noncredit Short Courses 219,12
  - Change Committee 219,12
- UNIX
  - Change Committee 212,15
  - Uniforum, January 1984 213, 4
  - General Purpose UNIX Timeshari 216, 5
  - The 8700 Laser Printer: How to 216, 8
  - Change Committee 216,29
  - Let's TAlk About It: 217, 1
  - Welcome Back to UNIX at UTCS 217, 5
  - Scarborough College Site 217, 7
  - Erindale College Site 217, 8
  - UTCS Terminal Server Network a 217, 8
  - Toronto DECUS '84 217,11
  - Out of the JCL, into the Shell 218,17
  - UTCS Noncredit Short Courses 218,24
  - Change Committee 218,24
  - New Text Processing Course for 219, 4
  - UTCS Noncredit Short Courses 219,12
  - Change Committee 219,12
- USERBOOK, see UTCS GUIDE
- UTCS GUIDE
  - Documentation Update 212, 6
  - Documentation Updates 213, 6
  - New UTCS Documents 213,17
  - The UTCS Guide to APL XFR 214, 5
  - New UTCS Documents 214,12
  - Online Documentation 215,18
  - New UTCS Documents 215,28
  - New UTCS Documents 216,30
  - New UTCS Documents 217,22
  - Documentation Update 218, 1
  - New DOCUMENT Command on 218,18
  - New UTCS Documents 218,25
  - New UTCS Documents 219,15
- UTCS Organization
  - New UTCS Board 212, 3
  - Advising Profile 212, 7
  - Statistical & Numerical Analys 213, 1
  - SNAC Support Group Objectives 213, 3
  - Increased Microcomputer Suppor 214, 1
  - Let's Talk About It: Brave New 215, 1
  - Let's TAlk About It: 217, 1
  - Meet the Imaging/Humanities Su 217, 2
  - The Statistical and Numerical 217, 3
  - The Microcomputer Support 217, 4
  - 978-HELP 217, 5
  - Accounting Services 217, 6
  - Let's Talk About It: Potpourri 219, 1
  - Mandate 219, 2
  - UTCS Strategic Position 219, 2
- UTS, see Student Services
- VAX
  - Let's Talk About It:Local Area 212, 1
  - Procedures and Times for Sched 212, 5
  - 1984 DECUS Canada Symposium 212, 8
  - Change Committee 213,15
  - General Purpose UNIX Timeshari 216, 5
  - Change Committee 216,29
  - Let's TAlk About It: 217, 1
  - Scarborough College Site 217, 7
  - Erindale College Site 217, 8
  - Toronto DECUS '84 217,11
  - Spring '84 DECUS 217,12
  - Change Committee 217,22
  - Change Committee 218,24
- VM/CMS
  - SHARE 215,13
  - What are VM and CMS 216,24
  - Call for Participants in a UTC 216,25
- Word Processing, see Text Processin
- WYLBUR
  - UTCS Noncredit Short Courses 213,14
  - UTCS Noncredit Short Courses 214, 9
  - Change Committee 214,10
  - SHARE 215,13
  - New Online Help for Support Cl 215,20
  - UTCS Noncredit Short Courses 215,27
  - The 8700 Laser Printer: How to 216, 8
  - GRIPE Facility Extends to TSO, 216,25
  - Change Committee 216,29
  - UTCS Noncredit Short Courses 217,21
  - Change Committee 217,22
  - WYLBUR COLLECT Conferen 219, 6
  - WYLBUR Release 7 219, 7
  - Change Committee 219,12
- XEROX 8700
  - Let's Talk About It: High Qual 213, 1
  - Change Committee 214,10
  - The 8700 Laser Printer: A Look 216, 6
  - The 8700 Laser Printer: Potent 216, 7

continued...

Cumulative Index continued

The 8700 Laser Printer: How to 216, 8
The 8700 Laser Printer: Change 216,11
The 8700 Laser Printer: Accoun 216,12
The 8700 Laser Printer: User S 216,12
The 8700 Laser Printer: User T 216,12
New Charging Methods for Print 216,13
Humanities News - Status of CO 216,15
Let's TAlk About It: 217, 1
The 8700 Laser Printer 217,14
Changes for Special Forms User 217,15
8700 User Seminar 217,15
Using the 8700 Laser Printer f 217,18
Change Committee 218,24
SAS and the 8700 219,10

XEROX 9700
An Alternative Path to the Xer 213,13
Change Committee 214,10
The 8700 Laser Printer: Change 216,11
9700 Service Discontinued 218,17
Change Committee 219,12

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External Marketing Consultant	Ihor Prociuk	MP350	6875
Erindale College	Peter Wall	2035	828-5311
Scarborough College	William Barek	S626	284-3173

General Enquiries	Dale Wright	EA206	4990
Account & Access Code Enquiries (U of T)	Agatha Stevens	MP337	8703
Account & Access Code Enquiries (External)	Sylvia May	MP337	7148
Tape Library (Academic Services)	Stella Martin	MP368	7319
Tape Library (Administrative Services)	Miranda Fong	MP368	6693
U of T Computer Library	Stephanie Johnston	EA206	2987

Central Advising Office (Appointments)	HELP	300 Baud Interactive Services	6200
Central Advising Office (Phone-in)	HELP	1200 Baud Interactive Services	3959
Microcomputer Support Group	5071	DATAPAC	4320, 0056
System Status Enquiries (DEC)	4318	Telenet	0302043200056
System Status Enquiries (IBM)	7393	Tymnet	<backspace> DPAC;302043200056

UTCS Directory

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Associate Director	Eugene Siciunas	MP350	5058
Senior Budget Analyst	Sheila Brown	MP350	8697

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Internal Systems & Administration	TBA		
Operations	Dr. Bob Chambers	MP350	7092
Systems	Bill Lauriston	MP331	3579
User Interface	Don Gibson	MP350	7331

Committees on Computing

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Natural Language Processing Steering Committee	Chairman	Prof. I. Lancashire	828-5273
UTCS Users' Committee	Chairman	Prof. J.C. Hurd	3056
	Secretary	Ms. C. Pereira	4463

UTCS Terminal and Advising Sites

Names and Locations

- **Central Advising Office (CAO), 978-HELP**
- **Education Facility (Educ)**, McLennan Labs, 60 St. George St., Room 221
- **Engineering Annex (EAT, EUT, CDF)**, 11 King's College Road, Rooms 103, 104, 107, 107B, 201, 203.
- **Erindale College (Erin), 828-5339**, Mississauga Road, Erindale Campus, Rooms 2005, 2039, 2045
- **Robarts**, Robarts Library, 130 St. George St., Room 1061A
- **Scarborough College (Scar), 284-3122**, Military Trail, Scarborough Campus, Rooms S624, S625, S627, S628, S628A
- **Sidney Smith (AST & ASUT)**, 100 St. George St., Rooms 1071, 1073, 2104, 2105
- **St.Michael's College**, 121 St. Joseph St., Room 101
- **Trinity College**, 6 Hoskins Ave., Room 024
- **Victoria University**, 73 Queens Park Cres., Room 005.

Sites	**Hours of Operation**				**Restrictions***	**Advising**
	Mon-Thurs	Fri	Sat	Sun		
AST	8:00-22:00	8:00-22:00	8:00-22:00	8:00-22:00	Research	978-HELP
ASUT	7:00-24:00	7:00-24:00	7:00-24:00	7:00-24:00	BICS	Arranged by Dept.
CAO	10:00-18:00	10:00-18:00	closed	closed	Research	978-HELP
CDF	24 hrs	24 hrs	24 hrs	24 hrs	Under	No
EAT	24 hrs	24 hrs	24 hrs	24 hrs	Research	Rm 106
Educ	24 hrs†	24 hrs†	24 hrs†	24 hrs†	Research**	978-HELP
(outer)	24 hrs†	24 hrs†	24 hrs†	24 hrs†	Research	978-HELP
Erin (2039)	9:00-17:00	9:00-17:00	24 hrs	24 hrs	Research	Rm 2005
(2045)	24 hrs	9:00-17:00	24 hrs	24 hrs	Undergrads	Rm 2005
EUT	24 hrs	24 hrs	24 hrs	24 hrs	BICS	Rm 107B
Robarts	8:30-24:00	8:30-24:00	9:00-17:00	13:00-22:00	BICS, Micros	Arranged by Dept.
Scar	9:00-24:00	9:00-24:00	10:00-17:00	closed	Research	Rm S624, S626
					Undergrads	Rm S624
St.Michael's	24 hrs	24 hrs	24 hrs	24 hrs	None	Arranged by College
Trinity	8:00-22:00	8:00-22:00	8:00-22:00	8:00-22:00	None	Arranged by College
Victoria	8:30-23:00	8:30-23:00	closed	closed	None	Arranged by College

* Research includes graduates, faculty, staff. ** May be unavailable due to UTCS courses.

† Building open Mon. - Thurs. 7:00 - 22:00, Fri. 7:00 - 17:00. Building closed Sat. & Sun.

Advising Hours

CAO	Monday through Friday, 10:00 - 18:00
EAT	Monday through Friday, 13:00 - 17:00 (Oct. - mid Dec., Jan. - Apr.)
Scar	Monday through Friday, 09:00 - 17:00
Erin	Mon. 09:00-17:00, Tues.-Thurs. 09:00-20:00, Fri. 09:00-17:00, Sat.-Sun. 12:00-16:00.

Services Available
(Y=yes, N=no)

	BICS	**Keypunch**	**PACX**	**Printers**	**Writer's Workbench**	**Terminal Server Network**	**DCS Micros**
AST	N	N	N	Y	N	Y	N
ASUT	Y	N	N	Y	N	N	N
CDF	N	N	N	Y	N	N	N
EAT	N	Y	N	Y	N	Y	N
Educ	N	N	Y	N	N	N	N
Erin	N	N	Y	Y	Y	N	N
EUT	Y	N	N	N	N	N	N
Robarts	Y	N	N	Y	Y	N	Y
Scar	Y	N	Y	Y	N	N	N
St.Michael's	Y	N	Y	Y	N	N	N
Trinity	Y	N	N	Y	N	N	N
Victoria	Y	N	Y	Y	N	N	N

UTCS Systems

3033/N12 Processor

- located in McLennan Physical Laboratories
- provides General Purpose Job Stream, TSO, WYLBUR, APL
- 12 megabytes of memory
- MVS with JES2

3033/U16 Processor

- located in McLennan Physical Laboratories
- provides instructional access using BICS
- 16 megabytes of memory
- UTS (modified UNIX Seventh Edition) under VM/370

4341 Mod II Processor

- located in McLennan Physical Laboratories
- provides administrative IMS/VS, DB/DC, Batch and TSO
- 16 megabytes of memory
- MVS with JES2

DECsystem-10 Model 1090

- located in McLennan Physical Laboratories
- provides General Purpose Time-Sharing
- 512 K - 36 bit words of memory
- TOPS-10 operating system, version 7.02
- GALAXY queuing, spooling, and Batch subsystem, Version 4.1

PDP-11/70 SAS UNIX

- located in McLennan Physical Laboratories
- provides UNIX Statistical Analysis Service (Dept. of Statistics only)
- 4 megabytes of memory
- UNIX Seventh Edition

"Hub VAX" (11/750)

- located in McLennan Physical Laboratories
- provides backup, program testing, and intercommunication relating to student services
- 3 megabytes of memory
- VMS

GP UNIX

- located in McLennan Physical Laboratories
- provides General Purpose Timesharing using UNIX
- typesetting hardware (CAT/8), and (Varian) for previewing output

Computer Disciplines Facility

VAX-11/750 (4 megabytes of memory)
VAX-11/750 (2 megabytes of memory)
VAX-11/780 (4 megabytes of memory)

- located in Engineering Annex
- provide Computer Science interactive access
- UNIX (Berkeley Unix 4.2BSD)

Communications & Technical Support

- located in Sandford Fleming Building, Fourth Floor
- Communications Group provides communications systems, terminals, modems, data channels: consulting and installation.
- Field Service Group installs and maintains small computer systems on a contract basis or on a cost-per-call basis.
- provides consulting on minicomputers; configures and installs minicomputer systems

Microcomputer Facility

- located in McLennan Physical Laboratories
- provides consulting on microcomputer systems
- offers media conversion services
- Machines include:
  IBM Personal Computer, PC/XT & PC Jr., APPLE IIe,
  Macintosh, TRS-80 Model 1, S-100 CP/M System,
  Osborne 1, Hyperion, Eagle Spirit,
  plus a variety of others on loan from suppliers

Scarborough College Systems

VAX-11/750 (5 megabytes of memory)
VAX-11/750 (2 megabytes of memory)

- provides instructional access using UNIX (Berkeley Unix 4.2BSD)

Erindale College Systems

VAX-11/780 (4 megabytes of memory)

- provides instructional access using VMS
- Research access

VAX-11/750 (5 megabytes of memory)

- provides instructional access using UNIX (Berkeley Unix 4.2BSD)

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